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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/553,945  
Filing Date: October 21, 2005  
Appellant(s): KAMIHARA, TETSUYA

\_\_\_\_\_  
Thomas G. Bilodeau  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed March 24, 2010 appealing from the Office action mailed October 19, 2009.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

Claims 1 and 3-17 are pending and are rejected.

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

20030003335	Kazama et al.	1-2003
20040001985	Alva	1-2004

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1 and 3-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0003335 (Kazama et al.) in view of US 2004/0001985 (Alva).

As to claim 1, Kazama et al. teach of a fuel cell stack [1] that generates electric power and provides it to a load [9] (for example a drive source) (para 0027; fig. 1). Although not specifically shown in the figures, Kazama et al. teach of the presence of a cooling unit that supplies coolant to the stack, wherein there the temperature of the coolant is measured by a temperature sensor (see step 32 of fig. 12; para 0088). Furthermore, Kazama et al.'s system calculates the electric power that can be

generated from the fuel cell via the temperature of the coolant, compares it to the amount that is generated and adjusts the flows of the oxidant and fuel gas based off of that (figs. 11-13; para 0089-0094). It is noted that such processes are done via control unit [10], whose functional constitution is shown in fig. 2, and thus the items which have inputs into the control algorithm are linked to the control system (i.e. the temperature sensor). Furthermore, as seen in fig. 1, the control unit, as seen in fig. 1, also controls the flow of fuel (via pressure control valve [3] through S1), the flow of oxidant (via motor [5] through S2 and pressure control valve [6] through S3), and the power control unit [7] through S4), wherein the controller [10] can set a target power generation amount (fig. 1-2; para 0030; para 0032).

Kazama et al. does not specifically teach that the temperature sensor of the coolant is on the inlet of the coolant.

However Alva teaches that coolant parameters such as temperature sensors on both the inlet (inlet temperature detecting unit) and outlet of the fuel cell [10] (in order to tell how much heat is removed from the fuel cell) as well as the flow rate of the coolant, wherein such parameters will in turn be sent to a processor (control unit), which will control operation of the components of the system (para 0034). The motivation for wanting to provide such sensors with respect to the fuel cell is in order to more effectively control the system as to the needs of the fuel cell (via the circulation pump speeds and fan speeds to provide the appropriate amount of cooling/heating) (as set forth in para 0034). Therefore it would have been obvious to one having ordinary skill in the art at the time the claimed invention was made to provide sensors (temperature

sensors on the inlet and outlet of the fuel cell, as well as a flow control sensor) in order to better monitor the cooling system with respect to the fuel cell and to provide better control as with respect to the fuel cell needs.

It is noted that the combination of Kazama et al. and Alva yields the same structure of the claimed invention (as Kazama et al. teaches of having a fuel cell, a cooling unit to deliver coolant to the fuel cell, and power management system that controls target power generation connected to a control unit and Alva is relied upon to render obvious the connection of temperature sensors and flow meters to a control unit to control heating/cooling (via pumps and fans). Accordingly, since the structure of the combination is the same as that of the instant application's structure, it is seen to capable of operating (and thus "configured to" operate) in the same manner (i.e. such that the control unit controls the electric power or current extracted from the fuel cell stack in accordance with the coolant temperature unit detected by the inlet temperature detecting unit and such that the control unit sets the limit value of the electric power or electric current extracted from the fuel cell stack in such a manner that the higher said coolant temperature becomes, the lower said limit value is set.)

It has been held that the recitation of an element is "capable" of performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138.

While intended use recitations and other types of functional language cannot be entirely disregarded. However, in apparatus, article, and composition claims, intended use must result in a structural difference between the claimed invention and the prior art

in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. In re Casey, 370 F.2d 576, 152 USPQ 235 (CCPA 1967); In re Otto, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963).

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). See also MPEP § 2114.

The manner of operating the device does not differentiate an apparatus claim from the prior art. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

As to claim 3, the combination of Kazama and Alva, which has the same structure as the claimed invention, is capable of operating (and thus "configured to" operate) in a manner such that the control unit sets said limit value to a fixed value until the coolant temperature reaches a prescribed temperature and lowers the limit value when the coolant temperature exceeds the prescribed temperature. Please see the rejection of claim 1 as to the Office's position on functional language as applied to apparatuses capable of performing the same function.

As to claim 4, the combination of Kazama and Alva, which has the same structure as the claimed invention, is capable of operating (and thus “configured to” operate) in a manner such that when said coolant temperature exceeds the prescribed temperature, the control unit sets said limit value in such a manner that the extracted current becomes lower as said coolant temperature becomes higher. Please see the rejection of claim 1 as to the Office’s position on functional language as applied to apparatuses capable of performing the same function.

As to claim 5, the combination of Kazama and Alva, which has the same structure as the claimed invention, is capable of operating (and thus “configured to” operate) in a manner such that the control unit (1) receives the coolant temperature detected by the inlet temperature detecting unit, (2) obtains a maximum electric current allowed to be extracted from the fuel cell stack based on said coolant temperature, (3) compares a requested electric current to the maximum current allowed to be extracted, and (4) selects the smaller of the compared electric currents. Please see the rejection of claim 1 as to the Office’s position on functional language as applied to apparatuses capable of performing the same function.

As to claim 6, the combination of Kazama and Alva, which has the same structure as the claimed invention, is capable of operating (and thus “configured to” operate) in a manner such that the control unit (1) receives the coolant temperature detected by the inlet temperature detecting unit, (2) calculates an allowable value for the coolant temperature difference between the inlet and outlet of the fuel cell stack based on said coolant temperature, (3) estimates the coolant temperature difference between



the inlet and outlet of the fuel cell stack based the allowable value for the coolant temperature difference between the inlet and outlet of the fuel cell stack, (4) obtains a maximum electric current allowed to be extracted from the fuel cell stack based on the coolant temperature difference between the inlet and outlet of the fuel cell stack, (4) compares a requested electric current to the maximum current allowed to be extracted, and (5) selects the smaller of the compared electric currents. (It is noted that Alva renders obvious a coolant inlet temperature hooked up to a processor (control unit), wherein the control unit is capable of operating in the aforementioned manner.) Please see the rejection of claim 1 as to the Office's position on functional language as applied to apparatuses capable of performing the same function.

As to claim 7, the combination of Kazama et al. and Alva has the same structure as the invention claimed, since Alva's coolant inlet temperature sensor as connected to the processor (control unit) (as rendered obvious in claim 1) is seen to be provide all that is necessary for an outlet estimating unit (as the control unit would be capable of doing such estimation). Accordingly, it is seen as being capable of operating in the same manner, such that the control unit (controls the electric power or electric current extracted from the fuel cell stack in accordance with the temperature of the coolant at the outlet of the fuel cell stack estimated by the outlet temperature estimating unit). Please see the rejection of claim 1 as to the Office's position on functional language as applied to apparatuses capable of performing the same function.

As to claim 8, the combination of Kazama et al. and Alva has the same structure of he claimed invention, since Alva is relied upon to teach a coolant flow rate detector

(as rendered obvious in claim 1). Accordingly, it is seen as being capable of operating in the same manner (such that the control unit estimates the rate at which heat is transferred from the stack to the coolant). Please see the rejection of claim 1 as to the Office's position on functional language as applied to apparatuses capable of performing the same function.

As to claim 9, the combination of Kazama and Alva, which has the same structure as the claimed invention, is capable of operating (and thus "configured to" operate) in a manner such that the outlet temperature estimating unit (control unit, as connected to the peripheral extensions, as set forth in the rejection to claim 1) estimates the coolant temperature at the outlet of the fuel cell stack based on the coolant flow rate detected by the coolant flow rate detecting unit and the heat removal rate estimated by the heat removal rate estimating unit. Please see the rejection of claim 1 as to the Office's position on functional language as applied to apparatuses capable of performing the same function.

As to claim 10, the combination of Kazama and Alva, which has the same structure as the claimed invention, is capable of operating (and thus "configured to" operate) in a manner such that the heat removal rate estimating unit (control unit, as connected to the peripheral extensions, as set forth in the rejection to claim 1) estimates the heat removal rate based on the electric power or electric current extracted from the fuel cell stack. Please see the rejection of claim 1 as to the Office's position on functional language as applied to apparatuses capable of performing the same function.

As to claim 11, the combination of Kazama and Alva, which has the same structure as the claimed invention, is capable of operating (and thus “configured to” operate) in a manner such that the heat removal rate estimating unit (control unit, as connected to the peripheral extensions, as set forth in the rejection to claim 1) estimates the heat removal rate based on the electric power or electric current extracted from the fuel cell stack and the output voltage of the fuel cell stack. Please see the rejection of claim 1 as to the Office’s position on functional language as applied to apparatuses capable of performing the same function.

As to claim 12, the combination of Kazama et al. and Alva has the same structure as the invention claimed, since Alva renders obvious the use of a coolant outlet temperature sensor as connected to the processor (control unit) (as rendered obvious in claim 1).

As to claim 13, the combination of Kazama et al. and Alva has the same structure as the invention claimed, since Alva renders obvious the use of a coolant outlet temperature sensor (indicative of stack temperature and thus serves as a stack temperature detecting unit as well) (as rendered obvious in claim 1). Accordingly, it is seen as being capable of operating (and thus “configured to” operate) in the same manner the heat removal rate estimating unit (control unit, as connected to the peripheral extensions) estimates the heat removal rate based on the electric power or electric current extracted from the fuel cell stack and the temperature of the fuel cell stack detected by the stack temperature detecting unit. Please see the rejection of

claim 1 as to the Office's position on functional language as applied to apparatuses capable of performing the same function.

As to claim 14, the combination of Kazama et al. and Alva has the same structure as the invention claimed, since Alva renders obvious the use of a coolant inlet and outlet temperature sensors as well as flow rate sensors to control the pumps (which controls the flow rate) by using a processor (control unit), thus constituting a coolant flow rate setting unit (as rendered obvious in claim 1). Accordingly it is capable of operating in such a manner that at least in a high load region of the fuel cell, the difference between the coolant temperature at the inlet of the fuel cell stack and the estimated coolant temperature at the outlet of the fuel cell stack increases as the output of the fuel cell increases.

As to claim 15, the combination of Kazama et al. and Alva has the same structure as the invention claimed, since Alva renders obvious the use of a coolant outlet temperature sensor (as rendered obvious in claim 1).

As to claim 16, the combination of Kazama and Alva, which has the same structure as the claimed invention, is capable of operating in a manner such that control unit (as connected to the peripheral extensions, as set forth in the rejection to claim 1) limits the electric power or electric current extracted from the fuel cell stack when the temperature detected by the outlet temperature detecting unit exceeds a prescribed value. Please see the rejection of claim 1 as to the Office's position on functional language as applied to apparatuses capable of performing the same function.

As to claim 17, the combination of Kazama and Alva, which has the same structure as the claimed invention, is capable of operating (and thus “configured to” operate) in a manner such that when the coolant temperature is rising, the control unit sets said prescribed value in such a manner that the electric power or electric current extracted from the fuel cell stack is limited based on the temperature of the coolant at the inlet of the fuel cell stack before it is limited based on the temperature of the coolant at the outlet of the fuel cell stack while the coolant temperature rises. Please see the rejection of claim 1 as to the Office’s position on functional language as applied to apparatuses capable of performing the same function.

#### **(10) Response to Argument**

**Issue I – Appellant argues that a control unit “configured to” perform certain functions requires that the control unit to be programmed to perform the recited functions.**

Examiner respectfully disagrees. It is submitted that “programmed to” and “configured to” are not synonymous, as being configured can be interpreted to relate to the structure of the computer/controller as it is connected to its peripheral extensions (and not the functioning of the computer/controller). Furthermore, it is noted that nowhere in the disclosure as originally filed is any type of program/programming appreciated, as such terms are not within the originally filed disclosure. Accordingly, Appellant’s current interpretation as to “configured to” appears to contradict the interpretation with respect to the disclosure as originally filed (as no programming is appreciated). Thus, the language “configured to” is broader than Appellant’s currently

applied interpretation. Accordingly, the combination as set forth in the rejection above is seen to be “configured” in the same manner (as combination renders obvious the use of a controller connected to the necessary peripheral extensions). There is nothing in the claim language to preclude such an interpretation, and thus the actions performed are interpreted to be functional. In such a manner, it is submitted that “configured to” is a phrase similar to those discussed in MPEP §2111.04, wherein it is stated that: “Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure.” Although “configured to” is not specifically set forth in the list in MPEP §2111.04, it is stated that that the listed phrases are “not exhaustive.” Due to the fact that “configured to” is not clearly linked to being “programmed to,” the above interpretation is applicable, and thus the obviated physical structure is the same as the claimed physical structure (and is capable of operating in the same manner).

It has been held that the recitation of an element is “capable” of performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138.

While intended use recitations and other types of functional language cannot be entirely disregarded. However, in apparatus, article, and composition claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference

as compared to the prior art. In re Casey, 370 F.2d 576, 152 USPQ 235 (CCPA 1967); In re Otto, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963).

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). See also MPEP § 2114.

The manner of operating the device does not differentiate an apparatus claim from the prior art. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

Furthermore, office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Also, limitations appearing in the specification but not recited in the claim are not read into the claim. See *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d, 1320, 1322 (Fed. Cir. 1989). In response to Appellant's argument that the references fail to show certain features of Appellant's invention, it is noted that the features upon which Appellant relies (i.e., that the controller is programmed to carry out certain functions) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26

USPQ2d 1057 (Fed. Cir. 1993). Thus, the arguments set forth by Appellant are irrelevant to the claim language of the instant application.

**Issue II – Appellant argues that a general purpose computer programmed to carry out a claimed invention creates a new machine (citing *WMS Gaming Inc. v. International Game Technology*, *In re Alappat*, and *In re Bernhart*).**

Examiner respectfully disagrees. It is submitted that all of the above cited cases are directed to the language of being “programmed” to perform certain functions. Again, Examiner would like to emphasize that “programmed to” and “configured to” are not synonymous. Appellant has not provided any proof or reasoning as to why “programmed to” and “configured to” would be synonymous to one of ordinary skill in the art. Furthermore, as set forth above in the response to Issue I, nothing in the disclosure as originally filed is drawn to being programmed or having programs, which would support Examiner’s position that such terms are indeed not synonymous. Accordingly, it is submitted that only a general purpose computer is being claimed (and only a general purpose computer is supported by the disclosure). In such a manner, Examiner submits that the phrase “configured to” is broader than Appellant is interpreting and is a phrase that can be interpreted under MPEP §2111.04, which states that: “Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure.” Again, it is submitted that due to the fact that “configured to” is not clearly linked to being “programmed to,” the above interpretation is applicable, and



thus the obviated physical structure is the same as the claimed physical structure (and is capable of operating in the same manner).

Please see response to Issue I, wherein the Office's position with respect to functional language as applied to apparatus claims, the Office's position with respect to giving the claims the broadest reasonable interpretation, and the Office's position as to arguments directed at limitations that are not claimed have been set forth. (Such a response is applicable herein and is incorporated herein, but not reiterated for brevity's sake.) Thus, the arguments set forth by Appellant are irrelevant to the claim language of the instant application.

**Issue III – Appellant again presents arguments wherein there is submission that programming and configuration are synonymous.**

Examiner respectfully disagrees. Again, it is submitted that Appellant has not provided any showing, proof, or reasoning as to how "programmed to" (programming) and "configured to" (configuration) are synonymous, wherein nothing in the disclosure as originally filed is drawn to being "programmed," which would support the position that such terms are indeed not synonymous. Thus it is submitted that the interpretation of "configured to" as set forth in the rejection and as set forth in the response to Issue I and Issue II are applicable (i.e. that such claim language does not impart structural features). (Such responses to Issue I and Issue II are incorporated herein but are not reiterated for brevity's sake. See the responses to Issue I and Issue II for full details.)

**Issue IV – Appellant argues that *In re Prater* also supports Appellants position (that a general purpose computer could be programmed to practice a claimed**

**device, such as a special purpose computer, and thus without a teaching of suggestion in the prior art to perform the function, obviousness would not exist).**

Examiner respectfully disagrees. It is submitted that the above cited case is directed to the language of being "programmed" to perform certain functions. Again, Examiner would like to emphasize that "programmed to" and "configured to" are not synonymous. Appellant has not provided any proof or reasoning as to why "programmed to" and "configured to" would be synonymous to one of ordinary skill in the art. Nothing in the disclosure as originally filed is drawn to being programmed, which would support the position that such terms are indeed not synonymous. Accordingly, the claim language is not directed towards a special purpose computer. Thus it is submitted that the interpretation of "configured to" as set forth in the rejection and as set forth in the response to Issue I and Issue II are applicable (i.e. that such claim language does not impart structural features). (Such responses to Issue I and Issue II are incorporated herein but are not reiterated for brevity's sake. See the responses to Issue I and Issue II for full details.)

**Issue V – Appellant again argues that a special purpose machine (programmed to perform a function) is not anticipated by a general purpose machine (wherein there is submission that programming and configuration are synonymous).**

Examiner respectfully disagrees. Again, Examiner would like to emphasize that "programmed to" and "configured to" are not necessarily synonymous. Appellant has not provided any proof or reasoning as to why "programmed to" and "configured to" would be synonymous to one of ordinary skill in the art. Again, nothing in the disclosure

as originally filed is drawn to being programmed, which would support the position that such terms are indeed not synonymous. Accordingly, the claim language is not drawn to a special purpose machine, but rather a general purpose machine. Thus it is submitted that the interpretation of "configured to" as set forth in the rejection and as set forth in the response to Issue I and Issue II are applicable (i.e. that such claim language does not impart structural features). (Such responses to Issue I and Issue II are incorporated herein but are not reiterated for brevity's sake. See the responses to Issue I and Issue II for full details.)

**Issue VI – Appellant argues that since the rejection does not meet the structure of the claim language, because the controller is not programmed to/configured to perform the functions.**

Examiner respectfully disagrees. Again, Examiner would like to emphasize that "programmed to" and "configured to" are not synonymous. Appellant has not provided any proof or reasoning as to why "programmed to" and "configured to" would be synonymous to one of ordinary skill in the art. Again it is noted nothing in the disclosure as originally filed is drawn to being "programmed", which would support the position that such terms are indeed not synonymous. Thus it is submitted that the interpretation of "configured to" as set forth in the rejection and as set forth in the response to Issue I and Issue II are applicable (i.e. that such claim language does not impart structural features). (Such responses to Issue I and Issue II are incorporated herein but are not reiterated for brevity's sake. See the responses to Issue I and Issue II for full details.)

Furthermore, it is emphasized that the interpretation taken with respect to the claim language is that "configured to" pertains to only the physical (and not functional) aspects (i.e. all of claimed pieces connected in the same manner). It is noted the combination of Kazama et al. and Alva yields the same structure of the claimed invention (as Kazama et al. teaches of having a fuel cell, a cooling unit to deliver coolant to the fuel cell, and power management system that controls target power generation connected to a control unit and Alva is relied upon to render obvious the connection of temperature sensors and flow meters to a control unit to control heating/cooling (via pumps and fans), wherein proper motivation to combine Alva with Kazama et al. has been provided (i.e. in order to more effectively control the system as to the needs of the fuel cell via the circulation pump speeds and fan speeds to provide the appropriate amount of cooling/heating; see para 0043 in Alva and the rejection of claim 1 for full details). Accordingly, since the structure of the combination is the same as that of the instant application's structure, it is seen to capable of operating (and thus "configured to" operate) in the same manner (i.e. such that the control unit controls the electric power or current extracted from the fuel cell stack in accordance with the coolant temperature unit detected by the inlet temperature detecting unit and such that the control unit sets the limit value of the electric power or electric current extracted from the fuel cell stack in such a manner that the higher said coolant temperature becomes, the lower said limit value is set.) In such a manner, it is submitted that Appellant appears to be arguing that the prior art combination fails to recognize the advantages of the functions set forth in the claim language. In response to Appellant's argument that the

prior art does not recognize ability to use specific functions, the fact that Appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). (As set forth above, obviousness for the combination made in the rejection has been clearly set forth in the rejection, wherein the same physical structure has been achieved by such combination.)

**Issue VII – Appellant argues that “configured to” requires structure, *State Street*, a case dealing with §112, 6, wherein “means” is draw to a specific structure.**

Examiner respectfully disagrees and submits that *State Street Bank & Trust Co. v. Signature Financial Group, Inc* is not applicable to the instant application as the fact patterns are entirely different. First it is submitted that *State Street* is a case that invokes 112(6) means plus function. This is not the case with the instant application, and thus examination under means plus function as set forth in MPEP §2181 is not applicable to the instant application, and any such comparison is improper. Furthermore, the underlying issue of *State Street* had to do with the patentability of business methods and 101 with respect to data structures. Accordingly, it is submitted that such comparison (with respect to the claim language) is not appropriate, as the fact patterns in the cases are entirely different.

**Issue VIII – Appellant argues that *Ex parte Schneider* shows that a controller “configured to” perform functions must be considered when interpreting an**

**apparatus case, wherein *In re Swinehart* is cited to state that claim elements made be defined using functional or structural language.**

Examiner respectfully disagrees with Appellant's position and submits that it is not being submitted that that functional language cannot be used to describe claim elements or that such language has not been considered. Rather, it is submitted that the Office's position is that an apparatus must be distinguished from the prior art in terms of structure rather than function (see MPEP §2114). And thus, upon considering the claim language as a whole, "configured to" has not been established to clearly impart any structural limitation. Thus it is submitted that the interpretation of "configured to" as set forth in the rejection and as set forth in the response to Issue I and Issue II are applicable (i.e. that such claim language does not impart structural features). (Such responses to Issue I and Issue II are incorporated herein but are not reiterated for brevity's sake. See the responses to Issue I and Issue II for full details.)

**Issue IX – Appellant argues that even given a broad interpretation to "configured to" that the structure (controller connected to its peripheral extensions) is not met (citing §MPEP 2173.05(g), which states the term "operatively connected" means that the components must be connected in a way to perform a designated function and limitations including the term "adapted to be positioned" define structural attributes of interrelated component parts of the claimed assembly).**

Examiner respectfully disagrees. First it is submitted that the physical structure is met. It is noted the combination of Kazama et al. and Alva yields the same structure of the claimed invention (as Kazama et al. teaches of having a fuel cell, a cooling unit to

deliver coolant to the fuel cell, and power management system that controls target power generation connected to a control unit and Alva is relied upon to render obvious the connection of temperature sensors and flow meters to a control unit to control heating/cooling (via pumps and fans), wherein proper motivation to combine Alva with Kazama et al. has been provided (i.e. in order to more effectively control the system as to the needs of the fuel cell via the circulation pump speeds and fan speeds to provide the appropriate amount of cooling/heating; see para 0043 in Alva and the rejection of claim 1 for full details). It is unsure how the structural features are not met, as Appellant has not provided any elaboration as to what claimed structure (not function) has not been met. (What physical claim element is missing? For non-limiting example, is Appellant submitting that, for an inlet temperature detecting unit is missing? It is noted that this is not the case, as Alva et al. has been relied upon to render such a limitation obvious.) Accordingly, as Appellant has not specifically pointed how any of the physical structures are missing, it is submitted that the rejection to claim 1 clearly sets forth all of the physical structural requirements of the claim language.

With respect to the cited portion of the MPEP, it is submitted that the functional language has not been ignored and has been evaluated and considered. First it is noted that the neither "operatively connected" nor "adapted to" is used within the claim language, and thus is uncertain to the degree such terms can be applied to the case of the instant application. However, as Appellant is submitting it is applicable, Examiner will address the cited portions of MPEP §2173.05(g) and explain as to how they support the interpretation taken with respect to the current claim language.

With respect to "operatively connected" it is stated that "the claimed components must be connected in a way to perform a designated function." The statement only requires that the claimed components must be connected in a certain manner that is able to perform the designated function, not that the function must be performed. There is no indication that such functions must necessarily be performed. As set forth above and in the rejection, the claimed components are connected in the same way (such that it can perform the designated function, and thus is capable of doing so; see the response to Issues I and II as to the Office's position on an apparatus capable of performing prescribed functions.

With respect to the "adapted to" language, it appears Appellant's brief is admitting that "configured to" (used in the claim language) is synonymous to "adapted to." Thus Appellant appears to be supporting Examiner's position (that "configured to" and "adapted to" are similar). It is noted that "adapted to" is a phrase that suggests or makes optional but does not require steps to be performed or by claim language that does not limit a claim to a particular structure (and thus does not necessarily limit the structure of a claim) (see MPEP §2144.04). Thus the obviated physical structure (as set forth in the rejection) is the same as the claimed physical structure (as adapted can be interpreted to apply to the physical arrangement of the claimed components, and does not apply to any sort of programming). (See the responses to Issue I and Issue II, wherein the interpretation applied to "configured to" (as claimed) has been drawn to share similarities to "adapted to" (which does not further impart structural limitations), wherein such an interpretation is reasonable as applied to the claim language. Such



responses are incorporated herein but are not reiterated for brevity's sake. See the responses to Issue I and Issue II for full details.)

**Issue X – Appellant again argues that Kazama et al. does not teach certain control functions cited by the claims (“control the electric power or electric current extracted from the fuel cells tack in accordance with the coolant temperature detected by the inlet temperature detecting unit” and “to set a limit value of the electric power or electric current extracted from the fuel cell stack in such a manner that the higher said coolant temperature becomes, the lower said limit value is set”) and that Alva does not cure such deficiencies (as applied to the function of the control).**

Examiner respectfully disagrees. Again, it is submitted that the language “configured to” is broader than Appellant’s applied interpretation. Accordingly, the combination as set forth in the rejection above is seen to be “configured” in the same manner (as combination renders obvious the use of a controller connected to the necessary peripheral extensions). There is nothing in the claim language to preclude such an interpretation, and thus the actions performed are interpreted to be functional, wherein the same structure would be capable of carrying out the same functions. Such responses to Issue I and Issue II are applicable and are incorporated herein, however, they are not reiterated for brevity’s sake. See the responses to Issue I and Issue II for full details.)

Furthermore, it is again emphasized that the interpretation taken with respect to the claim language is that “configured to” pertains to only the physical (and not

functional) aspects (i.e. all of claimed pieces connected in the same manner). It is noted that the reasoning on how the combination meets the claim language has been properly set forth in the rejection and has been elaborated upon in the response to Issue VI and Issue IX, above, wherein Appellant has not pointed out any physical claim element that is missing by the combination (that would render the obviated structure incapable of performing the functions of the functional claim language). (The aforementioned sections are incorporated herein, but are not reiterated for brevity's sake. See the rejection, and the response to Issue VI and Issue IX for full details.)

**Issue XI – Appellant argues that the dependent claims are distinct from the prior art of record for the same reason as the independent claim.**

Examiner respectfully disagrees. The rejection with respect to the independent claim has been maintained, and thus the rejections to the dependent claims are maintained as well.

**Thus the claimed invention is not held to be patentably distinct from the teachings of the prior art references relied upon in the rejections, and the rejections stand.**

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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